

Peter RIEDLBERGER, Domninus of Larissa. Encheiridion and spurious works. Introduction, critical text, English translation, and commentary. Mathematica Graeca Antiqua Bd. 2. Pisa/Rom: Fabrizio Serra 2013, 279 S.

I was delighted to be asked to review this new edition of the works, genuine and spurious, of the late Greek philosopher Domninus. I first encountered Domninus in the short note contained in Volume 2 of Heath's *A History of Greek Mathematics* when I was preparing to teach a course in the History of Mathematics back in 1999. No English translation of the *Encheiridion* was available and so I decided to prepare one myself with a brief introduction and some brief notes. This was published in the *Harvard Review of Philosophy* in 2000. As Dr. Dr. Riedlberger points out I was totally unaware that at the same time F. Romano was also preparing a translation, but in Italian. I possessed neither the time nor the expertise to do much more than I did. I did, however, also prepare a translation of *How to take a ratio from a ratio* but since an English translation had already been undertaken by Knorr in 1975, I made no effort to publish it. I was, however, keenly aware that although my translation may have made Domninus' *Handbook* more accessible and perhaps better known to those interested in late Greek Mathematics, there were many questions and issues which I was unable to deal with or find satisfactory answers to. Hence I was very pleasantly surprised to receive a copy of Riedlberger's comprehensive and scholarly book, which has achieved far more than I was able to.

Domninus was a contemporary of the philosopher Proclus, the latter best known for this commentary on Euclid Book 1, and belongs to that group of scholar-philosophers often referred to as *neo-Platonists*. He lived in the 5th century AD and was connected with the philosophical School at Athens. A number of works are ascribed to him. These are collected with Greek text, translation and commentary in Dr. Dr. Riedlberger's book. The most important are the *Handbook*, or *Encheiridion*, and the work entitled *How to take a ratio from a ratio*. The *Handbook* bears some similarity to the *Arithmetica* of Nicomachus of Gerasa (c. 60-120 AD) and the relationship between the two is discussed in some detail by Riedlberger, as is also, the relationship between Domninus' approach to arithmetic and that of Euclid. While I am not in complete agreement with him in this matter, his analysis is detailed and thorough. The main aim of the *Handbook* was to provide the ancient reader with some background to the so-called *theoretical arithmetic* as a preliminary to the reading of Plato's more mathematical works, such as the *Timaeus*. In addition to the two works listed above, (the latter he regards as spurious), Riedlberger has also included the spurious *Scholia on Nicomachus*, a work with which I was not at all familiar.

In addition to providing a new Greek text, translation and commentary, Dr. Riedlberger has meticulously gathered, arranged and presented a large amount of material relating to the cultural and philosophical background to the work as well as the School at Athens to which Domninus belonged. He has carefully analysed the biographical material, especially the remarks of Marinus and references in the Suda, and outlined a probable scenario for the life and times of the author. He does this, as with everything else in the book, without excessive speculation or guesswork, but by relying soundly on careful argument from the extant sources. One of the obvious questions that occurred to me (and of course to many others) when looking at the biographical information was the status of Domninus at the School. Marinus refers to Dominus as the *Diodochos*, that is, *successor* of Syrianus – a position known elsewhere to have been given to Proclus. I had no real solution to this question. Riedlberger discusses this matter and makes, I think, a reasoned case for explaining away the line as a scribal gloss, as others had done before him. All this material is contained in the first two chapters of his book, which are well-organised, interesting and very readable.

The third chapter is dedicated to a discussion of the works attributed to Domninus, including a number of lost works, whose names alone survive. Riedlberger carefully discusses issues of authorship as well as content. The next chapter consists of an appraisal of Domninus' work and his place in the history of Greek Mathematics.

The *editio princeps* of the *Handbook* by Boissonade in 1832, in *Anedota Graeca e codicibus regii* Vol. IV, is not an easy edition to use – as I discovered when translating. Of some help were the well-thought out and numerous conjectures made by Tannery in 1885, but nevertheless, Riedlberger's new edition of the text was highly desirable and he appears to have done an excellent job and a great service to future scholars of this author. He has gone to great lengths to examine the manuscript tradition and has provided a careful *apparatus criticus* to the text.

The format of text with facing translation is very helpful, especially for those with little or no Greek. The translations given by Riedlberger are fairly literal – less so, however, than mine. As he himself says: „A book on Domninus of Larissa will hardly be perused by non-specialists, and all of my translations are hence intended for readers familiar with basic concepts of ancient Greek mathematics“ (p. 105). Thus, he retains (as I did) antiquarian terms such as *subsuperparticular* and *subsesquitercian*, to describe various multiples and sub-

multiples of whole numbers. In *How to take a ratio from a ratio* he allows himself the ease of modern fraction notation.

Following the text/translations, Chapter 7 provides very detailed commentaries on the three works preceding. The commentary on the *Handbook* is quite substantial and takes up around 60 pages. Every aspect of the work from textual details, historical background and mathematical meaning is dealt with carefully and thoroughly – including a number of corrections to my own translation.

In summary Dr. Dr. Riedlberger has produced a very scholarly, well-written and thoughtful treatise on the philosopher/mathematician Domninus which will be of use to those interested in late Greek mathematics and the School of philosophy at Athens in the 5th century.

This work by Dr. Dr. Riedlberger is now and will remain for a long time, in my opinion, the standard treatment of the historical and mathematical background of this minor late Greek writer, as well as providing a much needed replacement for the old – at times unreliable – text of Boissonade.

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